



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: ASSISTANT COMMISSIONER FOR PATENTS

Washington, D.C. 20231

| | | | |
|---------------------------------|-------------|---|---------------------|
| APPLICATION NO./ CONTROL NO. | FILING DATE | FIRST NAMED INVENTOR / PATENT IN REEXAMINATION | ATTORNEY DOCKET NO. |
|---------------------------------|-------------|---|---------------------|

| |
|----------|
| EXAMINER |
|----------|

| | |
|----------|-------|
| ART UNIT | PAPER |
|----------|-------|

6

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

See attached PTO-Forms and office action.

Allowable Subject Matter

1. Claims 1-35 are allowed over prior art.

2. The following is an examiner's statement of reasons for allowance:

The prior art of record fail to teach or fairly suggest an apparatus for autonomous operation over an area comprising a controller having a processor to provide at least one scanning pattern for a first portion of said area; analyze said first portion for an opening to a second portion of said area; and signal a drive system to move along a path at least proximate the periphery of said first portion to and through said opening to said second portion of said area as cited in claims 1 and 7; with respect to claim 11, a nozzle for suction of particulates comprising a body, a lip wherein said lip configured for creating a flow cavity to be formed with the floor or surface over which said nozzle traverses; with respect to claim 16, a method for area coverage by an autonomous machine moving along a path at least proximate to the periphery of said first portion to and through said opening to said second portion of said area; with respect to claim 22, a method for area coverage by an autonomous machine moving along a path at least proximate the periphery of said scanned portion to a second point, said second point at a different location than said first point; with respect to claims 26 and 31, an obstacle detection system or an autonomous cleaning machine comprising receiver portions configured for receiving said arms in

a pivotal engagement in combination with the other elements and features of the claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to McDieunel Marc whose telephone number is (703) 305-4478. The examiner can normally be reached on 6:30-5:00 Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski, Jr. can be reached on (703) 308-3873. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9000.


MoDieune Marc

June 26, 2002

MM/


William Cuchlinski, Jr.

WILLIAM A. CUCHLINSKI, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600